DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 3/28/2008 have been fully considered but they are not persuasive.

Regarding Claim 1, Applicant's arguments are understood, however the language of the claim is broader than the details used in basis of the argument, and therefore examiner maintains that Fukushima in view of Ikeyama render obvious the invention as it is currently claimed.

Regarding applicant's argument that Fukushima merely controls TG 24R and 24L and does not disclose the selective supply of power voltage to the image pickup elements, examiner maintains the rationale in the first rejection: Fukushima does not specifically show the source and controller of power of the CCDs, however one of ordinary skill in the art would recognize an imaging system inherently has a main processing or control unit to supply power and control power (see DETAILED ACTION mailed 12/28/2007, Page 2, Lines 21-24). Examiner maintains that the selector circuit with the limitations of Claim 1 is inherent; a circuit supplying power is inherent. The limitations of Claim 1 define that the selector circuit *selectively* supplies a *predetermined* power supply voltage to both image pickup elements. This language is broad enough that an imaging system with two image pickup elements that inherently are powered by a circuit still teaches this limitation. "Selectively" can include the meaning that both image pickup elements are powered, and can also include one or the other image

pickup elements are powered, and without further definition will be interpreted with a broad meaning.

Regarding applicant's argument that the invention "selectively supplies a power supply to output amplifiers to generate output voltages according to electric charges accumulated in the floating diffusions of the image pickup elements", along with the limitations of Claim 1 (...the first and second solid-state image pickup elements operate in a time-sharing manner, and the power supply voltage is supplied to the solid-state image pickup element which is in an operating state) may imply that a circuit supplies power to one of two image pickup elements in a manner that only the image pickup element that is necessary will be powered at the appropriate time. However, the language of the claim does not limit the claim to this meaning. Claim 1's use of "time-sharing manner" does not limit the claim to the above meaning, but rather is broad enough to be interpreted as both image pickup elements are power and used simultaneously in a time-sharing manner. Lastly, the limitation of Claim 1 where the power supply voltage is supplied to the image pickup element which is in an operating state does not limit the power supply voltage from being supplied to the other image pickup element. Therefore the Fukushima patent where both image pickup elements are power still teaches this limitation.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukushima (US 6236428) in view of Ikeyama (US 7068310).

Regarding Claim 1, Fukushima teaches an image pickup device comprising: a first solid-state image pickup element which accumulates first information electric charges generated in response to a first object image in a plurality of light reception pixels (*Fig. 2 reference number 21R)*; a first drive circuit which obtains a first image signal by driving the first solid-state image pickup element (*Fig. 2 reference number 24R and Col 6 Lines 48-51)*; a second solid-state image pickup element which accumulates second information electric charges generated in response to a second object image in a plurality of light reception pixels (*Fig. 2 reference number 21L)*; a second drive circuit which obtains a second image signal by driving the second solid-state image pickup element (*Fig. 2 reference number 24L)*. Fukushima does not specifically show the source and controller of power to the CCDs, however one of ordinary skill in the art would recognize an imaging system inherently has a main processing or control unit to supply power and control power. In Col 7 Lines 23-28 Fukushima teaches when power to the apparatus is turned on, the data controller sends a reset signal to the timing gates generators which generate a drive pulse to the image sensing devices. The control unit of an imaging apparatus inherently selects and supplies a predetermined power supply voltage to both CCDs in order to operate

the device to produce the output seen in Fig. 5. The first and second solid-state image pickup elements operate in a time-sharing manner (*Fig. 5 shows the outputs of the two CCDs with respect to time and therefore shows the signals are output in a time-sharing manner, specifically VOUTL and VOUTR signals share, or both operate either in sync or alternately within the same shared period of time)*, and the power supply voltage is supplied to the solid-state image pickup element which is in an operating state. One of ordinary skill in the art realizes that in order for a solid state image pickup device to be operating it must receive power to operate.

Although one of ordinary skill in the art knows a solid state image pickup device such as a CCD is scanned in at least one direction and it is also well known in the art to scan the CCD both horizontally and vertically controlled by a timing control circuit, Fukushima fails to specifically teach a timing control circuit which determines timing of vertical scanning and horizontal scanning of the first and second solid-state image pickup elements.

Ikeyama teaches an imaging device with a timing generator to determine timing for driving a CCD by controlling vertical and horizontal scanning to control the operation of the CCD. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teaching of Fukushima with an image sensor such as specifically a CCD with operation controlled by vertical and horizontal scanning controlled by a timing generator because this is well known in the art to speed up the process of operation of CCD.

Regarding Claim 2, Fukushima teaches the image pickup device according to claim 1, wherein the selector circuit overlaps a part of a period in which the power supply voltage is supplied to one of the first and second solid-state image pickup elements with respect to a period in which the power supply voltage is supplied to the other one of the first and second solid-state image pickup elements. Fukushima teaches the left and right CCDs are initialized to drive in sync (*Col 7 Lines 23-27)* and Fig. 3 shows the outputs from the CCDs, RDATA and LDATA are in sync. The power supply voltage must be supplied in order to operate the CCDs to obtain the output signals shown in Fig. 3. Therefore one of ordinary skill in the art would recognize the power supply voltage supplied to the first and second image pickup elements are in sync, meaning they overlap a part of a period in which the other image pickup element is receiving power; the part of the period being the entire period if they are in sync.

Regarding Claim 3, Fukushima teaches the image pickup device according to claim 1, wherein the first solid-state image pickup element (*Fig. 2 reference number 21R)* comprises a first capacitance which takes in and accumulates the first information electric charges which are transferred and output and a first output amplifier which takes out a change in potential of the first capacitance according to an accumulated electric charge quantity of the first information electric charges and outputs the first image signal (*one of ordinary skill in the art knows a solid state image pickup element such as a pixel of a CCD comprises a capacitor to accumulate electric charge proportional to the light intensity which is transferred and input to an amplifier which*

converts the charge into a voltage which is output) , the second solid-state image pickup element (*Fig. 2 reference number 21L)* comprises a second capacitance which takes in and accumulates the second information electric charges which are transferred and output and a second output amplifier which takes out a change in potential of the second capacitance according to an accumulated electric charge quantity of the second information electric charges and outputs the second image signal (*as stated above)*, and the selector circuit supplies the power supply voltage to the output amplifier of the solid-state image pickup element which is in an operating state of the first and second output amplifiers. One of ordinary skill in the art would realize a power supply voltage must be supplied to a device such as an output amplifier in order for it to operate, so whichever amplifier is in an operating state must have power supplied from a selector circuit such as a CPU.

Regarding Claim 4, Fukushima teaches the image pickup device according to claim 3, wherein the selector circuit overlaps a part of a period in which the power supply voltage is supplied to one of the first and second output amplifiers with respect to a period in which the power supply voltage is supplied to the other one of the first and second output amplifiers. Fukushima teaches the two image pickup devices are synchronized and the outputs are shown in sync in Fig. 3. One of ordinary skill in the art would realize that the operations of the image pickup devices from initialization to outputting signals are synchronized and so the power supplied to the two amplifiers

within the CCD are synchronized. Therefore there is an overlap in the period of which power is supplied to both amplifiers, the part of the period being the entire period.

Regarding Claim 5, Fukushima teaches the image pickup device according to claim 1, further comprising an output selector circuit which takes in the first and second image signals and selectively outputs the first and second image signals to a processing circuit on a next stage in synchronization with operation timing of the first and second solid-state image pickup elements (*Fig. 2 reference number 31 is an output selector circuit which selects outputs from the first and second image signals, GDATA and MDATA from the two CCDs and puts it into a DA circuit which is a processing circuit. This is done in synchronization with operation timing of the two CCDs as seen connected in Fig. 2)*, wherein the output selector circuit has a plurality of input paths respectively corresponding to the first and second image signals (*Fig. 2 reference number 31 has two inputs coming from the two CCDs after processing)*, each input path operates upon receiving the power supply voltage, and the selector circuit selectively supplies the power supply voltage to each of the plurality of input paths in synchronization with the operation timing of the first and second solid-state image pickup elements. One of ordinary skill in the art would recognize that once power is supplied the operation takes place, where the operation is outlined in Fig. 2 including outputting processed RDATA into the input path leading to reference number 31 where the two outputs are combined. This is in synchronization with the timing of the two CCDs (*Col 7 Lines 18-2).*

Regarding Claim 6, Fukushima teaches the image pickup device according to claim 5, wherein the selector circuit overlaps a part of a period in which the power supply voltage is supplied to one of the plurality of input paths with respect to a period in which the power supply voltage is supplied to the other one of the plurality of input paths. One of ordinary skill in the art would realize that a power supply voltage must be supplied to the device at various points to complete the operation including sending the signal through the input paths into the output selector circuit where signals from both CCDs are combined. Fukushima teaches the two CCDs are synchronized, so one of ordinary skill in the art would realize the power supply voltage is supplied in sync to the input paths. This would be an overlap in the part of the period, being the section comprising the period where the power supply voltage is applied to both CCDs.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amy Hsu whose telephone number is 571-270-3012. The examiner can normally be reached on M-F 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lin Ye can be reached on 571-272-7372. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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ARH 6/13/08

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